

ABSTRACT OF THE DISCLOSURE

[0499] A number of caged (e.g., photoactivatable) compositions are provided, for example, caged enzyme sensors, caged binding sensors, caged nucleic acid probes, caged interfering RNAs, caged antisense nucleic acids, caged ribozymes, caged biomolecular analogs, caged transcription factors, caged antibodies, caged molecular decoys, and caged aptamers. Compositions comprising a plurality of caged components are also provided, as are labeled and optionally caged modulators. Also provided are kits for making the caged compositions and methods for making and for using the caged compositions. Related systems and devices are also provided (e.g., an uncaging device that can trigger photoactivatable assays and optionally detect signals from the assays).